Strategies for broadband adoption and digital skills

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Agenda

- Importance of Broadband
- Strategies
  - Broadband Adoption
  - Digital Skill
- Examples
- Conclusion

Broadband Objectives

- We encourage widespread, affordable, high-quality broadband for all – focused on both deployment and adoption, including infrastructure, devices and **Digital Skills.**
  - Competitive markets
  - Abundant spectrum for broadband
  - Targeted government programs to address market failures

- Intel works with policy makers and partners to unlock the ICT for all:
  - Private networks using fixed wireless
  - Workforce development and STEM
  - AI for youth
  - Appointed member of Oregon Broadband Advisory Committee
  - Past experts on broadband commission WG
  - Broadband Publications

USAID FROM THE AMERICAN PEOPLE

GSMA

A4AI ALLIANCE FOR AFFORDABLE INTERNET

BROADBAND COMMISSION FOR SUSTAINABLE DEVELOPMENT

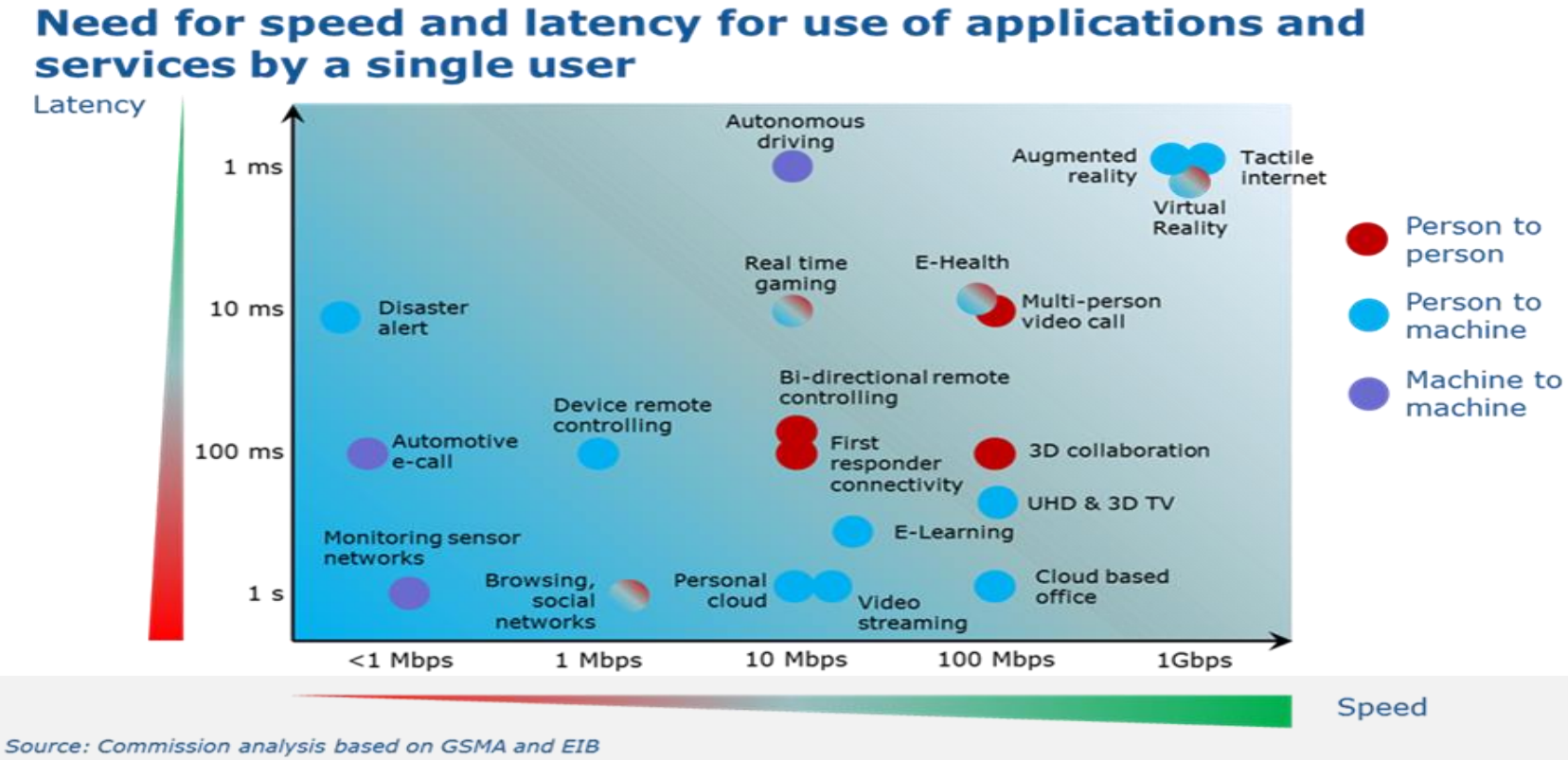
ITU

UNESCO

WORLD BANK

Why Broadband and What Is It

- Broadband is Good for Society
  - **Economic growth, creates Jobs (necessary for todays jobs), is important in healthcare for telemedicine, and studies show it helps SMEs, and improves social outcomes.**



Key Elements of Broadband

- Broadband = Deployment and Adoption
- 5 A's of Broadband
  - Access = infrastructure (Networks and Devices)
  - Affordability
    - High cost areas
    - Low income
  - Awareness/Interest
    - What can BB do for me = knowledge and enticing applications
    - Will my ID and data be safe = security
  - **Ability**
    - **How do I do this = Digital skills teaching**
    - **Advanced digital skills for workforce**
  - Additional factors
    - fear
    - embarrassment
    - language barriers
    - Lack of communal support

Key Success factors for Digital Transformation

- Political support and coordination between different Ministries
- National and regional plans including financing mechanisms
- High-speed, high-quality broadband digital infrastructure and services
- Demand creation and digital skill development programs
- Implementation of new technologies

National Strategies

- Digital Strategy (including broadband adoption)
- Digital Infrastructure and Broadband Strategy (including broadband demand creation)
- Digital Skill Development Strategy
- Strategies for new technologies (AI, 5G, Wi-Fi 6 etc.)

European Union – Digital Skills

https://digital-strategy.ec.europa.eu/en/policies/digital-skills

The EU has developed a range of policies and initiatives to increase digital skills in both the workforce and consumers.

- **European Skills Agenda:** Five-year plan to help individuals and businesses develop more and better skills.

- **Digital Education Action Plan:** sets out a common vision of high-quality, inclusive and accessible digital education in Europe.

  -Priority 1: Fostering the development of a high-performing digital education ecosystem

  -Priority 2: Enhancing digital skills and competences for the digital transformation (including AI and data-related skills)

- **Digital skills and jobs coalition: T**ackles the digital skills gap by bringing together Member States, companies and organisations.

African Union - Digital Strategies

Digital Transformation Strategy for Africa is based on foundation pillars including Digital Infrastructure, Digital Skills and Human Capacity, Digital Education

Digital Education Strategy & Implementation Plan (three focus areas)

- Digital technology appropriation in education – accelerating the adoption of digital technologies for teaching, learning, research, assessment and administration
- Education in digital technology for digitally empowered citizens/ for the digital economy and society – strengthening digital literacy and skills for all, especially for teachers and students and
- Building the capacity of AU Member states in digital infrastructure (networks and devices) for digital education.

World Bank – Digital Skills Guidebook

Digital Skills Country Action Plans for Higher Education and TVET

Six Key Strategies for Developing Digital Skills

- Establish enabling policies and develop Digital Skills framework
- Reform of Digital Skills education and training programs
- Enhance use of technologies in teaching and learning
- Connect higher education and TVET institutions to affordable high-speed broadband
- Capacity building and business process re-engineering in Ministries
- TVET: Technical and Vocational Education and Training
  https://thedocs.worldbank.org/en/doc/0a4174d70030f27cc66099e862b3ba79-0200022021/original/DSCAP-MethodGuidebook-Part1.pdf

ITU Digital Skills Toolkit

https://www.itu.int/en/ITU-D/Digital-Inclusion/Documents/ITU%20Digital%20Skills%20Toolkit.pdf

Roadmap to accelerated digital skills development

- Create a digital skills coalition, council or task-force
- Define the main categories of digital skills that the strategy will develop, recognizing that digital skills exist on a spectrum from basic, intermediate to advanced skill levels.
- Inventory existing policies, plans and programmes that support the development of digital skills and analyse how they can be used to support the goals of the digital skills strategy.
- Identify current and future trends in relation to demographic trends, technological changes, business trends, trade, industrial policies, and the shift to a greener economy, etc.
- Identify new policies and programmes that are needed and conduct advocacy both using the existing policies and to build support for new policies.
- Draft a digital skills development strategy (primary education, secondary education, territory education, work-related digital skills education, skills for life in the digital economy for all citizens)

Digital Learning for Digital Skills

UNESCO

- Digital technology has become a social necessity to ensure education as a basic human right.
- UNESCO Supports its Member States to design, integrate and implement effective national policies and masterplans on digital learning with a special focus on disadvantaged populations.
- Half of the total number of students (826 million) – kept out of the classroom by the COVID-19 pandemic, do not have access to a household computer and 43% (706 million) have no internet at home.
- Guidelines for ICT in education policies and masterplans; https://unesdoc.unesco.org/ark:/48223/pf0000380926

BROADBAND COMMISSION REPORT ON DIGITAL LEARNING (Hybrid Learning) https://www.broadbandcommission.org/working-groups/digital-learning-2021

- Hybrid learning enables students to study in flexible ways, online (remote) or face-to-face.

Recommendations include;

- Promote hybrid learning to recover from the pandemic, reimagine education, and narrow the digital divide; Hybrid learning combines face-to-face instruction with computer-mediated pedagogies. Models of hybrid learning should be developed to support inclusive education as a public, common good.
- Adopt a national strategy for digital skills development for life, work and lifelong learning; To overcome the social and economic dimensions of the digital divide, national stakeholders should define system-wide strategies to develop a skilled and digitally ready society.

ITU WTDC 2022

New Resolution: Connecting every school to the internet and every young person to information and communication technology services

calls upon Member States, Sector Members and Academia of the ITU Telecommunication Development Sector

- to promote whole-of-government and public-private partnership approaches for connectivity and infrastructure to bridge the digital divide and support the local development of digital education and training systems;
- to encourage the adoption of a national strategy for school connectivity and digital skills development for life, work and lifelong learning, encompassing students, teachers and educators;
- to make all efforts to bring down the costs of connectivity infrastructure and of the installation and operation of ICT equipment;
- to identify, examine and implement sustainable energy solutions and supply for connectivity to and in schools, taking into consideration the geographical and topographical context;
- to promote innovation in infrastructure and connectivity operating models to ensure inclusive and sustainable digital learning;
- to share knowledge, expertise, skills and experiences in connecting schools and the communities around them.

Spain National Digital Strategy (Digital Spain 2026);

https://espanadigital.gob.es/sites/espanadigital/files/2022-08/Digital%20Spain%202026-Executive%20Summary.pdf

Eight specific digital plans have been adopted:

- The Digital Infrastructures and Connectivity Plan for society, economy and territories,
- Strategy for the promotion of 5G Technology,
- National Artificial Intelligence Strategy,
- National Plan for Digital Skills,
- SME Digitalization Plan,
- Public Administration Digitalization Plan,
- Spain Audiovisual Hub of Europe,
- National Cybersecurity Plan

Spain National Digital Skills Plan

https://portal.mineco.gob.es/RecursosArticulo/mineco/ministerio/ficheros/210902-digital-skills-plan.pdf

- Digital skills training for the general population
- Digitalize the education system and develop digital skills for learning
- Bridge the gender digital divide
- Training in the use of digital skills throughout working life (private sector workers and the unemployed)
- Digital skills training for public sector workers
- Develop digital skills in SMEs
- Increase the presence of ICT specialists (in vocational training and university graduates and researchers)

Digital Education with new Technologies in Schools

Prepare students to succeed in the world of tomorrow with educational technology solutions

Computers for Education

Artificial Intelligence

Interactive Whiteboards

Smart Classroom

India YUVAi – National AI (Artificial Intelligence) Program

YUVAi

YOUTH FOR UNNATI & VIKAS WITH AI

National program for school students from classes 8-12

- A national program enabling government school students pan India to become AI Ready. Program for school students from classes 8-12.
- National e-Governance Division (NeGD), Ministry of Electronics & Information Technology (MeitY), Government of India, collaborated with Intel India to implement Responsible AI for Youth -
- YUVAi is aimed at fostering a deeper understanding of AI across the India with relevant mindset and skill sets and empower them to become human-centric designers and users of AI.
- Program Themes; AI in Education, AI in Healthcare, AI in Agriculture, AI for Smart Cities, AI in Environment &Clean Energy, AI in Transportation, AI for Rural Development, AI in Law and Justice

Costa Rica - Connected Homes Program

- Program has been active since 2015. An ITU WSIS Prize Winner Project. Provides subsidized Internet connections and computers to low-income households (up to 80 percent of subsidy for computer and broadband).
- Financed by National Telecommunications Fund (FONATEL- Universal Service Fund in Costa Rica) is part of Telecommunications Superintendence (SUTEL), the Costa Rican telecommunications regulator.
- During COVID-19, extended the coverage of program by 46,462 additional households, thus surpassing the goal of 140,496 beneficiary households to 186,958 households
- SUTEL has also launched “Bicentennial Educational Network” for creating a broadband network throughout the country to serve all public schools and high schools (with internet service with speeds between 15 and 500 Mbps, this speed will be increased up to 1 Gbps in the coming years)

Conclusion

- Develop national digital strategy including broadband adoption and digital skill programs
- Get political support
- Develop and implement digital skill development programs (including AI, coding etc. especially for young generation)
- Integrate ICT in education and schools
- Implement affordable broadband connectivity and device programs (such as computers) especially for low-income students and households
- Ensure the adoption and use of broadband services by all people (digital equity)
- Develop Financing Mechanisms (including Universal Service Fund and Development Banks)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